

GenCore version 4.5
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OM protein - protein search, using sw model

Run on: August 14, 2002, 10:51:21 ; Search time 35.44 Seconds

(without alignments)
84.051 Million cell updates/sec

Title: US-09-785-059-3

Perfect score: 176

Sequence: 1 RMIRVQRCRAIRHMRIRGRLRWLV 31

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 283138 seqs, 96089334 residues

Total number of hits satisfying chosen parameters: 283138

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : PIR.71:*

1: PIR1:*

2: PIR2:*

3: PIR3:*

4: PIR4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	89	50.6	861	1 VCLJLV	env polypeptide pr
2	88	50.0	856	1 VCLJ3W	env polypeptide pr
3	87	49.4	357	2 S21990	envelope protein g
4	87	49.4	358	2 S22002	envelope protein g
5	85	48.3	358	2 S22000	envelope protein g
6	85	48.3	358	2 S70417	envelope protein g
7	84	47.7	852	2 T12016	envelope glycoprot
8	82	46.6	846	1 VCLJBR	env polypeptide pr
9	79	44.9	852	1 VCLJND	env polypeptide -
10	78	44.3	851	2 S33985	env polypeptide -
11	78	44.3	853	2 S54384	envelope glycoprote
12	78	44.3	856	1 VCLJH3	envelope glycoprote
13	78	44.3	856	1 VCLJH3	env polypeptide pr
14	77	43.8	855	1 VCLJVL	env polypeptide pr
15	76	43.2	357	2 S22006	envelope protein g
16	76	43.2	854	2 S13288	env polypeptide -
17	72	40.9	357	2 S21994	envelope protein g
18	70	39.8	868	1 VCLJH4	env polypeptide -
19	69	38.2	859	2 T01672	envelope glycoprote
20	68	38.6	357	2 S22004	envelope protein g
21	68	38.6	357	2 S21996	envelope protein g
22	68	38.6	357	2 S21992	envelope protein g
23	68	38.6	859	1 VCLJMN	env polypeptide pr
24	67	38.1	358	2 S21998	envelope protein g
25	67	38.1	861	1 VCLJSC	env polypeptide pr
26	66	37.5	847	2 T09448	env polypeptide pr
27	66	37.5	847	2 S13289	env polypeptide pr
28	66	37.5	856	1 A44563	env polypeptide pr
29	65	36.9	843	1 H44001	env polypeptide pr

30	64	36.4	861	1 VCLJKB	env polypeptide pr
31	61.5	34.9	111	2 T14306	glycine-rich prote
32	60	34.1	855	1 VCLJZR	env polypeptide pr
33	59	33.5	396	2 I58168	growth factor arg3
34	58.5	33.2	1538	2 H70846	hypothetical glyci
35	58	33.0	854	1 VCLJST	env polypeptide pr
36	57	32.4	432	2 T05236	hypothetical prote
37	56	31.8	863	2 A53034	gaq polypeptide -
38	54.5	31.0	998	1 Q08HB1	protein A - black
39	54.5	31.0	998	2 S41397	MADS box protein P
40	54	30.7	173	2 S23732	F6P9.11 protein -
41	53.5	30.4	153	2 F86331	hypothetical prote
42	52.5	29.8	173	2 B83504	glycerol-3-phospha
43	52	29.5	515	2 AH2996	g1pd gene homolog
44	52	29.5	531	2 A98287	hypothetical prote
45	52	29.5	1459	2 T24088	

ALIGNMENTS

RESULT 1

VCLJLV env polypeptide precursor - human immunodeficiency virus type 1 (isolate LAV-1a)

N:Alternate names: coat polypeptide

C:Species: human immunodeficiency virus type 1, HIV-1

A:Note: host Homo sapiens (man)

C:Date: 17-May-1985 #sequence_revision 17-May-1985 #text_change 16-Jul-1999

C:Accession: A03975

R:Main-Hobson, S.; Sonigo, P.; Danos, O.; Cole, S.; Alizon, M.

Cell 40, 9-17, 1985

A:Title: Nucleotide sequence of the AIDS virus, LAV.

A:Reference number: A90866; MUID:85099333

A:Accession: A03975

A:Molecule type: DNA

A:Residues: 1-861 <MAI>

C:Gene: env

C:Superfamily: type E retrovirus env polypeptide

C:Keywords: AIDS; capsid protein; coat protein; immunodeficiency; polyp

F:1-30/Domain: signal sequence #status predicted <Stc>

F:31-516/Product: exterior membrane glycoprotein #status predicted <EXT>

F:517-861/Product: transmembrane glycoprotein #status predicted <TM>

F:88,136,141,146,161,165,191,202,239,246,267,281,294,300,337,344,361,391,397,402,

F:616,621,630,642,679,755,821/Binding site: carbohydrate (asn) (covalent) #status pre

Query Match 50.6%; Score 89; DB 1; Length 861;

Best Local Similarity 75.0%; Pred. No. 0.00063;

Matches 21; Conservative 0; Mismatches 7; Indels 0; Gaps 0;

QY 1 RMIRVQRCRAIRHMRIRGRLRWLV 28

DB 833 RVLEVVGACRAIRHMRIRGRLRWLV 860

RESULT 2

VCLJ3W env polypeptide precursor - human immunodeficiency virus type 1 (isolate WMJ1)

N:Contains: coat protein gp120; coat protein gp41

C:Species: human immunodeficiency virus type 1, HIV-1

C:Date: 30-Sep-1988 #sequence_revision 30-Sep-1988 #text_change 07-Nov-1997

C:Accession: A24774

R:Starcich, B.R.; Hahn, B.H.; Shaw, G.M.; McNeely, P.D.; Modrow, S.; Wolf, H.; Parks,

Cell 45, 637-648, 1986

A:Title: Identification and characterization of conserved and variable regions in the

A:Reference number: A24774; MUID:86218077

A:Accession: A24774

A:Molecule type: DNA

A:Residues: 1-856 <STA>

A:Cross-references: GB:M03455; GB:M38432; NID:g1906382

C:Genetics:

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A:Gene: env
C:Superfamily: type E retrovirus env polypeptide
C:Keywords: coat protein, glycoprotein, polypeptide, transmembrane protein
F:1-2/Domain: signal sequence #status predicted <STC>
F:30-501/Product: coat protein gp120 #status predicted <GP1>
F:502-847/Product: coat protein gp41 #status predicted <GP2>
F:87,134,140,151,155,183,197,234,241,262,276,289,295,331,338,354,360,390,394,404,447,459

Query Match          50.0%; Score 88; DB 1; Length 856;
Best Local Similarity 75.0%; Pred. No. 0.00084;
Matches 21; Conservative 0; Mismatches 7; Indels 0; Gaps 0;

QY 1 RWIRVQRMCRALRHIMRIRIROLGRRL 28
   | | | | | | | | | | | | | | | | |
Db 828 RVEEVQRICRALHPRIRIROLGRRL 855

RESULT 3
S21990
envelope protein gp120/gp41 - human immunodeficiency virus type 1
C:Species: human immunodeficiency virus type 1, HIV-1
A:Variety: isolate 20
C:Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 01-Dec-2000
C:Accession: S21990; S70423
R:Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.; Hacke, W.
submitted to the EMBL Data Library, July 1991
A:Description: Distinct populations of HIV-1 in blood and cerebrospinal fluid as determi
A:Reference number: S21990
A:Accession: S21990
A:Molecule type: DNA
A:Residues: 1-357 <STE1>
A:Cross-references: EMBL:X61357; NID:g60175; PIDN:CAA43626.1; PID:g60176
R:Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.
AIDS Res. Hum. Retroviruses 8, 53-59, 1992
A:Title: Distinct populations of human immunodeficiency virus type 1 in blood and cerebr
A:Reference number: S70417; MOID:92144209
A:Accession: S70423
A:Status: preliminary
A:Molecule type: DNA
A:Residues: 1-332, 'X', 334-357 <STE2>
A:Cross-references: EMBL:X61357; NID:g60175; PIDN:CAA43626.1; PID:g60176
C:Superfamily: type E retrovirus env polypeptide

Query Match          49.4%; Score 87; DB 2; Length 357;
Best Local Similarity 71.4%; Pred. No. 0.00053;
Matches 20; Conservative 1; Mismatches 7; Indels 0; Gaps 0;

QY 1 RWIRVQRMCRALRHIMRIRIROLGRRL 28
   | | | | | | | | | | | | | | | | |
Db 329 RVEEVQRICRALHPRIRIROLGRRL 356

RESULT 4
S22002
envelope protein gp120/gp41 - human immunodeficiency virus type 1
C:Species: human immunodeficiency virus type 1, HIV-1
A:Variety: isolate 3L
C:Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 01-Dec-2000
C:Accession: S22002; S70418
R:Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.; Hacke, W.
submitted to the EMBL Data Library, July 1991
A:Description: Distinct populations of HIV-1 in blood and cerebrospinal fluid as determi
A:Reference number: S21990
A:Accession: S22002
A:Molecule type: DNA
A:Residues: 1-358 <STE1>
A:Cross-references: EMBL:X61352; NID:g60186; PIDN:CAA43616.1; PID:g60187
R:Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.
AIDS Res. Hum. Retroviruses 8, 53-59, 1992
A:Title: Distinct populations of human immunodeficiency virus type 1 in blood and cerebr
A:Reference number: S70417; MOID:92144209

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A:Accession: S70418
A:Status: preliminary
A:Molecule type: DNA
A:Residues: 1-333, 'X', 335-358 <STE2>
A:Cross-references: EMBL:X61352; NID:g60186
C:Superfamily: type E retrovirus env polypeptide

Query Match          49.4%; Score 87; DB 2; Length 358;
Best Local Similarity 71.4%; Pred. No. 0.00053;
Matches 20; Conservative 1; Mismatches 7; Indels 0; Gaps 0;

QY 1 RWIRVQRMCRALRHIMRIRIROLGRRL 28
   | | | | | | | | | | | | | | | | |
Db 330 RVEEVQRICRALHPRIRIROLGRRL 357

RESULT 5
S22000
envelope protein gp120/gp41 - human immunodeficiency virus type 1
C:Species: human immunodeficiency virus type 1, HIV-1
C:Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 12-Apr-1995
C:Accession: S22000
R:Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.; Hacke, W.
submitted to the EMBL Data Library, July 1991
A:Description: Distinct populations of HIV-1 in blood and cerebrospinal fluid as dete
A:Reference number: S21990
A:Accession: S22000
A:Status: preliminary
A:Molecule type: DNA
A:Residues: 1-358 <STE>
A:Cross-references: EMBL:X61351
C:Superfamily: type E retrovirus env polypeptide

Query Match          48.3%; Score 85; DB 2; Length 358;
Best Local Similarity 71.4%; Pred. No. 0.00097;
Matches 20; Conservative 0; Mismatches 8; Indels 0; Gaps 0;

QY 1 RWIRVQRMCRALRHIMRIRIROLGRRL 28
   | | | | | | | | | | | | | | | | |
Db 330 RVEEVQRICRALHPRIRIROLGRRL 357

RESULT 6
S70417
envelope protein gp120/gp41 - human immunodeficiency virus type 1 (patient 3B) (fragm
C:Species: human immunodeficiency virus type 1, HIV-1
A:Variety: patient 3B
C:Date: 19-Mar-1997 #sequence_revision 25-Apr-1997 #text_change 26-Aug-1999
C:Accession: S70417
R:Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.
AIDS Res. Hum. Retroviruses 8, 53-59, 1992
A:Title: Distinct populations of human immunodeficiency virus type 1 in blood and cer
A:Reference number: S70417; MOID:92144209
A:Accession: S70417
A:Status: preliminary
A:Molecule type: DNA
A:Residues: 1-358 <STE>
A:Cross-references: EMBL:X61351; NID:g60184; PIDN:CAA43614.1; PID:g60185
C:Superfamily: type E retrovirus env polypeptide

Query Match          48.3%; Score 85; DB 2; Length 358;
Best Local Similarity 71.4%; Pred. No. 0.00097;
Matches 20; Conservative 0; Mismatches 8; Indels 0; Gaps 0;

QY 1 RWIRVQRMCRALRHIMRIRIROLGRRL 28
   | | | | | | | | | | | | | | | | |
Db 330 RVEEVQRICRALHPRIRIROLGRRL 357

RESULT 7

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T12016
envelope glycoprotein - human immunodeficiency virus type 1 (strain sc14.3)
C:Species: human immunodeficiency virus type 1, HIV-1
C>Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 21-Jul-2000
C:Accession: T12016
R:McCutchan, F.E.; Sanders-Buell, E.; Salminen, M.O.; Carr, J.K.; Sheppard, W.H.
A:Title: Diversity of the human immunodeficiency virus type 1 envelope glycoprotein in S
A:Reference number: 217379; MUID:98178716
A:Accession: T12016
A:Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 1-852 <MC>
A:Cross-references: EMBL:U09034; NID:g2351783; PIDN:AAC59271.1; PID:g2351784
C:Genetics:
A:Gene: env
C:Superfamily: type E retrovirus env polypotein

Query Match 47.7%; Score 84; DB 2; Length 852;
Best Local Similarity 71.4%; Pred. No. 0.0028;
Matches 20; Conservative 0; Mismatches 8; Indels 0; Gaps 0;

OY 1 RWIRVQRCRAIRHTRIRROGLRRML 28
DB 824 RVEIVQGRACRAIRHTRIRROGLRRAL 851

RESULT 8
env polypotein precursor - human immunodeficiency virus type 1 (isolate NDK)
N:Alternate names: coat polypotein
N:Contains: coat protein gp120; coat protein gp41
C:Species: human immunodeficiency virus type 1, HIV-1
A:Note: host Homo sapiens (man)
C>Date: 30-Sep-1991 #sequence_revision 30-Sep-1991 #text_change 16-Jul-1999
C:Accession: J00066
R:Spire, B.; Sile, J.; Zachar, V.; Rey, F.; Barre-Sinoussi, F.; Galibert, F.; Hampe, A.;
Gene 81, 275-284, 1989
A:Title: Nucleotide sequence of HIV-1 NDK: a highly cytopathic strain of the human immun
A:Reference number: J00065; MUID:90034200
A:Accession: J00066
A:Molecule type: DNA
A:Residues: 1-846 <SP>
A:Cross-references: GB:M27323; NID:g328154; PIDN:AAA44873.1; PID:g328162
A:Note: the authors translated the codon GCG for residue 523 as Arg
C:Genetics:
A:Gene: env
C:Superfamily: type E retrovirus env polypotein
C:Keywords: AIDS; capsid protein; coat protein; glycoprotein; immunodeficiency; polypote
F:1-29/Domain: signal sequence #status predicted <SIG>
F:30-501/Product: coat protein gp120 #status predicted <CP1>
F:502-846/Product: coat protein gp41 #status predicted <CP2>
F:502-520/Domain: transmembrane #status predicted <TM1>
F:674-692/Domain: transmembrane #status predicted <TM2>
F:87,129,151,179,182,229,236,257,271,284,290,351,382,388,392,395,401,438,451,452,601,606

Query Match 46.6%; Score 82; DB 1; Length 846;
Best Local Similarity 67.9%; Pred. No. 0.0051;
Matches 19; Conservative 2; Mismatches 7; Indels 0; Gaps 0;

OY 1 RWIRVQRCRAIRHTRIRROGLRRML 28
DB 818 RVEIVQGRACRAIRHTRIRROGLRRAL 845

RESULT 9
env polypotein - human immunodeficiency virus type 1 (isolate BR)
N:Alternate names: coat polypotein
N:Contains: coat protein gp120; coat protein gp41
C:Species: human immunodeficiency virus type 1, HIV-1

A:Note: host Homo sapiens (man)
C>Date: 31-Dec-1989 #sequence_revision 31-Dec-1989 #text_change 16-Feb-1997
C:Accession: A31667
R:Anand, R.; Thayer, R.; Srinivasan, A.; Nayyar, S.; Gardner, M.; Luciw, P.; Dandekar
Virology 168, 79-89, 1989
A:Title: Biological and molecular characterization of human immunodeficiency virus (H
A:Reference number: A94389; MUID:89085613
A:Accession: A31667
A:Molecule type: DNA
A:Residues: 1-852 <ANA>
C:Superfamily: type E retrovirus env polypotein
C:Keywords: capsid protein; coat protein; polypotein; transmembrane protein
F:1-516/Product: coat protein gp120 #status predicted <CP1>
F:517-852/Product: coat protein gp41 #status predicted <CP2>

Query Match 44.9%; Score 79; DB 1; Length 852;
Best Local Similarity 69.0%; Pred. No. 0.013;
Matches 20; Conservative 1; Mismatches 8; Indels 0; Gaps 0;

OY 1 RWIRVQRCRAIRHTRIRROGLRRML 29
DB 824 RVEIVQGRACRAIRHTRIRROGLRRALQ 852

RESULT 10
S33985
env polypotein - human immunodeficiency virus type 1
C:Species: human immunodeficiency virus type 1, HIV-1
C>Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 26-Aug-1999
C:Accession: S33985
R:Carlini, F.
A:Reference to the EMBL Data Library, November 1991
A:Reference number: S33979
A:Accession: S33985
A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-851 <CAR>
A:Cross-references: EMBL:Z11530; NID:g60192; PIDN:CAA7628.1; PID:g60199
C:Superfamily: type E retrovirus env polypotein

Query Match 44.3%; Score 78; DB 2; Length 851;
Best Local Similarity 71.4%; Pred. No. 0.017;
Matches 20; Conservative 0; Mismatches 8; Indels 0; Gaps 0;

OY 1 RWIRVQRCRAIRHTRIRROGLRRML 28
DB 823 RVEIVQGRACRAIRHTRIRROGLRRAL 850

RESULT 11
S54384
envelope polypotein - human immunodeficiency virus type 1
C:Species: human immunodeficiency virus type 1, HIV-1
C>Date: 15-Jul-1995 #sequence_revision 01-Sep-1995 #text_change 26-Aug-1999
C:Accession: S54384
R:Theodore, T.; Buckler-White, A.J.
submitted to the EMBL Data Library, July 1989
A:Reference number: S54377
A:Accession: S54384
A:Status: preliminary
A:Molecule type: genomic RNA
A:Residues: 1-853 <THE>
A:Cross-references: EMBL:M22639; NID:g3229377; PIDN:AAA45370.1; PID:g3229385
C:Superfamily: type E retrovirus env polypotein
C:Keywords: polypotein

Query Match 44.3%; Score 78; DB 2; Length 853;
Best Local Similarity 60.7%; Pred. No. 0.017;
Matches 17; Conservative 3; Mismatches 8; Indels 0; Gaps 0;

